

Union Oil plugging away at Parachute Creek oil shale plant

It's back to the drawing board and the metal-benders' shop at Union Oil Company's Parachute Creek oil shale plant in western Colorado.

Union Oil said August 14th it is making further modifications to the retorted shale shaft cooler, revisions that will take about two months.

The company has been trying since late last year to get the \$650 million plant into full-scale production. Various mechanical problems have thus far restricted operations to short-term spurts.

"We've made a great deal of progress in our recent series of test start-ups," said Richard J. Stegemeier, senior vice president of Union Oil.

"We've gathered valuable information on the shaft cooler and are confident that the modifications we are making will solve the problem of shale fines plugging the cooling system."

The plant operated at half rate and partial degree of retorting during recent runs that were designed to test changes in retort operating procedures and modifications previously made to the shaft cooler.

"While we were running the tests," Stegemeier said, "we were also looking at alternative ways to achieve uniform cooling. We're confident that the design modification alternative we've decided upon will work to solve this problem."

The problem is concerned with cooling shale rock after the oil has been separated from it in the retort chamber. Higher than anticipated levels of very fine shale particles have clogged the system's pumps and pipes.

In early runs of the plant, initial problems were with the scraper that removes spent shale from the retort chamber. It was redesigned and rebuilt at least once and modified several times.

Stegemeier said the rock pump, which also had to be modified, worked well during recent half-rate runs of the retort and oil production was achieved.

He said the redesigned scraper has also worked well, but the company will use this period to make minor adjustments to the scraper to further improve its performance.

"We've run into a few more problems with our new retort technology than we originally anticipated," said Stegemeier, "but the modifications we've made and those we are making will bring us closer to achieving sustained operation."

FIRST COMMERCIAL PLANT

The Parachute Creek plant has a design capacity of 10,000 barrels of shale oil per day. When it comes on line, it will be the nation's first commercial-sized oil shale plant.

And it has all been done thus far with Union Oil corporate funds, with no government participation. Union Oil has been a pioneer in the shale oil field and has been at Parachute Creek for a long time, having acquired its first shale oil land ownership in 1922.

Union Oil has been in negotiations with the U.S. Synthetic Fuels Corporation for additional expansion of the Parachute Creek mine and plant — after the present facility achieves sustained production and demonstrates soundness of the recovery system.

"With successful operation of the Phase I plant and the satisfactory completion of

negotiations with SFC, we plan to go forward with the Phase II expansion of the shale project," said Stegemeier.

Phase II, as presently conceived, would increase production from 10,000 to 40,000 bpd.

This aspect of the future is somewhat up in the air at the moment because SFC is in limbo and there is an Administration-backed move on in Congress to take most of the previously-authorized funding for synthetic fuels projects away from the agency.

Union Oil and SFC have been in negotiations on the Phase II expansion for some time. They had reached certain agreements before the SFC board of directors was decimated by resignations that left it without a quorum to conduct business.

President Reagan says he won't nominate new directors until after Congress reduces its funding and makes certain other changes.

The House has already acted to take back a large portion of the previously-authorized funding. It has also stipulated that the agreements with Union Oil are to be rescinded.

The matter still has to be acted upon by the Senate.

How it will all shake out remains to be determined. But Union Oil is apparently hopeful it will work out so it and SFC can proceed with their agreement, which is mostly concerned with price supports and purchasing commitments.

Regardless of what happens with the SFC, Union Oil is expected to continue in the shale oil production business in some manner. It is in it for the long haul, convinced that some day the demand for shale oil is going to deal it a hand with four aces.

ACT 1049/009

Sunshine continuing development work at Tintic properties

Sunshine Mining Company is continuing development work in the Trixie and Burgin mines in Utah despite the fact that most of the funding comes from sales of flux to Kennecott for use in smelting.

The Trixie and Burgin properties are mined primarily for their gold and silver values. But the ore contains silica, making it an excellent copper smelter fluxing agent that has been extensively used by Kennecott at its Utah Copper Division.

"We're shipping out our development rock for flux," E. Viet Howard, executive vice president and chief operating officer of Sunshine, explained recently.

Sunshine is busy developing its silver and gold properties in the Tintic Mining District, helped along by selling the ore and contained silica to Kennecott.

However, Kennecott on July cut back by two-thirds its UCD mining and milling operations. PAY DIRT asked Howard how the cutback affected Sunshine's sale of flux to the

copper industry giant.

Howard said that sales of flux to Kennecott have not been affected and he expected no change in the volume of those sales until at least the fourth quarter.

The news from Kennecott, Howard said, was, "There will be no significant reductions at the smelter over the next few months." The smelter is processing concentrates from the company's Chino Mines Company in New Mexico and from other sources.

The silica content in the Tintic ores combines with iron during the smelting process to form a slag which is drawn off.

The gold and silver values contained in the silica remain with the blister copper product in the smelting process and are later recovered during electrolytic refining.

Sunshine is continuing to block out ore at the old Burgin mine property, developing access to a major drill-indicated lead-silver orebody. "But we're not currently producing anything from that yet," Howard said.

Sunshine has converted the Burgin lead-zinc mill to handle gold and silver ores from Trixie and eventually from the reopened Burgin mine.

But, the mill is on standby status because, "We just don't have enough (ore) blocked out (at the Burgin property) to justify a startup at full capacity," Howard said.

To achieve maximum efficiencies and lowest cost, Sunshine would prefer to wait until it has developed enough ore to run the mill at capacity once the decision is made to put it back on line.

Howard said if flux shipments to Kennecott are severely curtailed, the Trixie and Burgin projects will have to be funded from Sunshine's internal sources instead of from flux sales revenues.

That would not appear to be necessary at the moment though because Kennecott has found alternative sources to supply materials to its smelter facilities and that is good news, Howard said.